

CLAIMS

The embodiments of an invention in which an exclusive property or right is claimed are defined as follows:

Sub A1  
5 1. A flow sensor package comprising:  
a housing having an inlet, an outlet, and first and second channels in communication with the inlet and the outlet;  
a sensing element in the first channel;  
a restriction in the second channel; and  
a seal engaging the sensing element so as to prevent flow of a fluid past the sensing element.

Sub B2  
2. The flow sensor package of Claim 1, wherein the housing includes a base and a cover.

3. The flow sensor package of Claim 2, wherein the seal comprises a pair of elastomeric seals, wherein the sensing element is captured between the elastomeric seals, and wherein the elastomeric seals are arranged to prevent leakage between the base and cover.

4. The flow sensor package of Claim 1, wherein the seal comprises a pair of elastomeric seals, and wherein the sensing element is captured between the elastomeric seals.

5. The flow sensor package of Claim 1, wherein the seal has a conductive path from the sensing element to a lead, and wherein the lead extends outside of the housing.

Sub B3  
6. The flow sensor package of Claim 1, wherein the fluid is a liquid or a gas.

7. The flow sensor package of Claim 1, wherein the inlet, the outlet, and the second channel are arranged to permit a flow of the fluid through the housing between the inlet and the outlet, and wherein the sensing element is arranged to sense a pressure change across the restriction.

8. The flow sensor package of Claim 7, wherein the seal has a conductive path from the sensing element to a lead, and wherein the lead extends outside of the housing.

Sub B4  
9. The flow sensor package of Claim 1, wherein the inlet, the outlet, and the second channel are arranged to permit a bidirectional flow of the fluid through the housing between the inlet and the outlet, and wherein the sensing element is arranged to sense a pressure change across the restriction.

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10. The flow sensor package of Claim 9, wherein the seal has a conductive path from the sensing element to a lead, and wherein the lead extends outside of the housing.

Sub B4  
11. A flow sensor package comprising:  
a housing having an inlet, an outlet, and first and second channels in communication with the inlet and the outlet;  
a sensing element in the first channel;  
a restriction in the second channel, wherein the restriction permits flow of a liquid through the inlet, the second channel, and the outlet; and  
a seal engaging the sensing element so as to prevent flow of the liquid past the sensing element, wherein the sensing element senses a pressure change across the restriction.

12. The flow sensor package of Claim 11, wherein the housing includes a base and a cover.

Sub B4  
13. The flow sensor package of Claim 12, wherein the seal comprises a pair of elastomeric seals, wherein the sensing element is captured between the elastomeric seals, and wherein the elastomeric seals are arranged to prevent leakage of the liquid between the base and cover.

14. The flow sensor package of Claim 11, wherein the seal comprises a pair of elastomeric seals, and wherein the sensing element is between the elastomeric seals.

15. The flow sensor package of Claim 11, wherein the inlet, the outlet, and the second channel are arranged to permit a flow of the liquid through the housing between the inlet and the outlet.

16. The flow sensor package of Claim 15, wherein the seal has a conductive path from the sensing element to a lead, and wherein the lead extends outside of the housing.

17. The flow sensor package of Claim 11, wherein the inlet, the outlet, and the second channel are arranged to permit a bidirectional flow of the liquid through the housing between the inlet and the outlet.

18. The flow sensor package of Claim 17, wherein the seal has a conductive path from the sensing element to a lead, and wherein the lead extends outside of the housing.

19. The flow sensor package of Claim 11, wherein the seal has a conductive path from the sensing element to a lead, and wherein the lead extends outside of the housing.

20. A method of determining flow rate through a flow conductor comprising the following steps of:  
creating a pressure change within a housing;  
sensing the pressure change using a sensing element mounted in communication with the housing;  
sealing the sensing element within the housing using a seal; and  
communicating a signal from the sensing element through the seal to an exterior of the housing.

21. The method of Claim 20, wherein the sealing step comprises the step of sealing leakage between a base and a cover of the housing.

22. The method of Claim 20, wherein the sealing step comprises the step of sealing the sensing element between a pair of elastomeric seals which capture the sensing element therebetween.

22. The method of Claim 20, wherein the sealing step comprises the step of sealing the sensing element between a pair of elastomeric seals which capture the sensing element therebetween.